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**UNIVERSITI TUN HUSSEIN ONN MALAYSIA**

**FINAL EXAMINATION  
SEMESTER II  
SESSION 2016/2017**

COURSE NAME : PRINCIPLES OF DOT NET  
PROGRAMMING

COURSE CODE : DAT 20903

PROGRAMME : DAT

EXAMINATION DATE : JUNE 2017

DURATION : 2 HOURS 30 MINUTES

INSTRUCTION : ANSWER ALL QUESTIONS

**TERBUKA**

THIS QUESTION PAPER CONSISTS OF TWENTY (20) PAGES

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**PART A**

**Q1** Recognize the programming style used in the code segment as below.

```
lblGreeting.Text = "Greetings " & txtName.Text & ": " & _  
    "You have been selected to win a free prize. " & _  
    "Just send us RM50 for postage and handling."
```

- A. Use double quotation to write comments
- B. Use single quotation to handle statement as a comment
- C. Use a special character to split the VB statements
- D. Use a line-continuation character for a long VB statement

(1.25 marks)

**Q2** Identify a statement of comment.

- A. 'Assign message to Text
- B. 'Assign message to Text'
- C. "You have been selected to win a free prize. "
- D. lblMessage.Text = "Welcome to DOT NET Class"

(1.25 marks)

**Q3** Choose an identifier which follow the Visual Basic naming rules.

- A. int#Sales
- B. Sub
- C. int Number Sold
- D. conMaximum

(1.25 marks)

**Q4** Choose the best keywords to complete the declaration statement for a constant as below.

```
_____ strCompany As _____ = "JTM Sdn Bhd"
```

- A. Private, String
- B. Dim, String
- C. Const, Char
- D. Const, String



(1.25 marks)

*[Faint, illegible text or stamp in the bottom right corner]*

- Q5** Determine the **CORRECT** input from an object named `txtNumber` if the following code segment is being implemented and get a True result?

```
txtNumber.Text > 0 And txtNumber.Text < 10
```

- A. `txtNumber.Text = 10`
- B. `txtNumber.Text = 9`
- C. `txtNumber.Text = 0`
- D. `txtNumber.Text = 11`

(1.25 marks)

- Q6** Arrange the hierarchy of operations or order of precedence, in arithmetic expressions from highest to lowest.

- i. Addition and subtraction
- ii. Multiplication and division
- iii. Exponentiation
- iv. Integer division
- v. Any operation inside parentheses
- vi. Modulus

- A. i, ii, iii, iv, v, vi
- B. iii, iv, v, ii, i, vi
- C. v, iii, ii, iv, vi, i
- D. v, vi, iv, iii, ii, i

(1.25 marks)

- Q7** “It is used when assigning values to the properties of user-created objects, and when retrieving the values of those properties”.

The above statement refers to \_\_\_\_\_.

- A. Sub-procedure or Sub
- B. Function procedure
- C. Event-handling procedure or event handler
- D. Property procedure

(1.25 marks)

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Q8

```
Private Sub ErrorCheck()  
    Dim TextData As String  
    TextData = Trim (txtInput.Text)  
    If TextData = "" Then  
        MsgBox("Please enter your name")  
    End If  
End Sub
```

Choose the **CORRECT** way to call the above Sub Procedure from Event Procedure.

- A. ErrorCheck
- B. Error Check()
- C. Call ErrorCheck()
- D. Call ErrorCheck

(1.25 marks)

Refer the following procedure for **Q9** and **Q10**.

```
Private Function AddTwoNumbers(ByVal first As Integer, &_  
    ByVal second As Integer) As Integer  
  
    Dim answer As Integer  
  
    answer = first + second  
  
    AddTwoNumbers = answer  
End Function
```

**Q9** Identify the return statement in the code.

- A. Private Function AddTwoNumbers()
- B. Dim answer As Integer
- C. answer = first + second
- D. AddTwoNumbers = answer

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(1.25 marks)

**Q10** Choose different style of writing a return statement from the code.

- A. Using the return statement
- B. Assigning the value to the function name
- C. Using byVal keyword
- D. Using byRef keyword

(1.25 marks)



**Q11** Choose an expected output if the following function is implemented.

```
lblResult.Text = Len("Syahmie Iqbal")
```

- A. 7
- B. 5
- C. 12
- D. 13

(1.25 marks)

**Q12** Identify logical operators used for writing a condition from the following list.

- i. And
- ii. Or
- iii. Not
- iv. Nor

- A. i and ii
- B. ii and iii
- C. i, ii and iii
- D. All of the above

(1.25 marks)

**Q13** It is given the following string value:

txtIndividu1.Text	txtIndividu2.Text
FATIENUL	FATIN

Choose the **CORRECT** condition to represent the above value. You may refer to **Table Q10** for ANSI Collating Sequence.

- A. txtIndividu1.Text < txt.Individu2.Text
- B. txtIndividu1.Text > txt.Individu2.Text
- C. txtIndividu1.Text >= txt.Individu2.Text
- D. txtIndividu1.Text = txt.Individu2.Text

(1.25 marks)



**Q14** Determine value of lblComment.Text after the following code is being implemented and the value of intTemp is 76.

```
If intTemp <= 32 Then
    lblComment.Text = "Freezing"
Else
    If intTemp > 80 Then
        lblComment.Text = "Hot"
    Else
        lblComment.Text = "Moderate"
    End If
End If
```

- A. Freezing
- B. Hot
- C. Moderate
- D. NULL

(1.25 marks)

**Q15** Determine the **CORRECT** value of lblResult.Text for the following code segment.

```
Dim answer, startNumber As Integer
answer = 1
For startNumber = 1 to 5
    Answer = answer + startNumber
Next startNumber
lblResult.Text = answer
```

- A. 22
- B. 16
- C. 11
- D. 7

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(1.25 marks)

**Q16** Choose the **CORRECT** answer to fill in the blank for the following code segment.

```
Dim creamcake As String
Dim DietState As String
creamcake = txtChoose.Text
Select Case _____
    Case "Eaten"
        DietState = "Diet Ruined"
    Case "Not Eaten"
        DietState = "Diet Not Ruined"
    Case Else
        DietState = "Didn't check"
End Select
MsgBox (DietState)
```

- A. Creamcake
- B. DietState
- C. txtChoose.Text
- D. Diet

(1.25 marks)

**Q17** Choose the **CORRECT** syntax for determining the number of items in a list.

- A. intTotal = lstFruit.Count
- B. intTotal = Items.Count
- C. intTotal = lstFruit.Count.Items
- D. intTotal = lstFruit.Items.Count

(1.25 marks)

**Q18** Identify the value of Marks (2) in the following code segment.

```
Dim Marks(5) As Integer
Marks = {98, 97, 96, 95, 94}
```

- A. 98
- B. 97
- C. 96
- D. 95

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(1.25 marks)

**Q19** Given a two-dimensional array as follows:

```
Dim rectArray(,) As Integer = New Integer(,) {{1,2}, {3,5}}  
lblAnswer.Text = rectArray(1, 1)
```

Choose the value of `lblAnswer.Text`.

- A. 1
- B. 2
- C. 3
- D. 5

(1.25 marks)

**Q20** \_\_\_\_\_ is an user interface that your user request using their browser.

- A. Web Page
- B. Web Form
- C. Master page
- D. Web site

(1.25 marks)

**Q21** When creating a web application using ASP.Net, the HTML or XML elements and server controls are stored in a file with \_\_\_\_\_ extension.

- A. .asp
- B. .aspx
- C. .vb
- D. .master

(1.25 marks)

**Q22** Choose the **CORRECT** data type used to store a value of states either Yes or No.

- A. Boolean
- B. Text
- C. Number
- D. Currency

(1.25 marks)

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**Q23** Identify a basic database terminology for X in the **Table Q23**.

- A. Field
- B. Row
- C. Record
- D. Composite key

(1.25 marks)

**Q24** The table feature for the amount of character that can be stored in each text field is known as \_\_\_\_\_.

- A. field length
- B. data type
- C. file size
- D. referential integrity

(1.25 marks)

**Q25** Choose the **CORRECT** query to display all the staff where the second letter in the first name is 'i'.

```
staff(staff_code, first_name, last_name, e_mail, Contact_no, dob, address, score);
```

- A. select first\_name from staff where first\_name like '\_i\_';
- B. select first\_name from staff where first\_name like '%i%';
- C. select first\_name from staff where first\_name like '%i\_';
- D. select first\_name from staff where first\_name like '\_i%';

(1.25 marks)

**Q26** Choose the **BEST** statement to define dataset object in ADO.NET.

- A. It is set to be a collection of data with a tabular column representation
- B. It is set to be a collection of data with a tabular cell representation
- C. It is set to be a collection of data with a tabular row representation
- D. It is set to be a collection of data with a tabular field representation

(1.25 marks)

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**Q27** Choose the **CORRECT** data providers in ADO.NET framework.

- A. .NET Framework Data Provider for SQL Server – A Data provider that provides access to Microsoft SQL Server 7.0 or later version and it uses the System.Data.SqlClient namespace
- B. .NET Framework Data Provider for MySQL Server – A Data provider that provides access to Microsoft MySQL Server 7.0 or later version and it uses the System.Data.MySqlClient namespace
- C. .NET Framework Data Provider for SQLI Server – A Data provider that provides access to Microsoft SQLI Server 7.0 or later version and it uses the System.Data.SqliClient namespace
- D. .NET Framework Data Provider for SQLdata Server – A Data provider that provides access to Microsoft SQLdata Server 7.0 or later version and it uses the System.Data.SqlDataClient namespace

(1.25 marks)

**Q28** Choose the **CORRECT** statements to describe the following codes:

```

conn.Open()
links.Connection = conn
links.CommandText="insert into Student (Id,Name,Address,NoTel)
values ('" & stuName.Text & "','" & stuName.Text & "','" &
stuAdd.Text & "','" & stuTel.Text & "')" links.ExecuteNonQuery()
MsgBox("Data Saved")
conn.Close()
    
```

- i. “conn.Open()” is used to establish a connection to database
- ii. The sql statement in above is used to update data in database
- iii. “ExecuteNonQuery( )” does not return data at all: only the number of rows affected by an insert, update, or delete
- iv. “Student” can be considered as database name

- A. i only
- B. i, ii and iv
- C. i and iii
- D. ii and iii

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(1.25 marks)

**Q29** \_\_\_\_\_ is use by programmer to close connection and bind the data into a Gridview to be displayed.

- A. `connection.close()` and `dataGridView1.DataSource`
- B. `connection.timeout()` and `dataGridView1.DataSource`
- C. `connection.open()` and `dataGridView1.DataSource`
- D. `connection.on()` and `dataGridView1.DataSource`

(1.25 marks)

**Q30** To view data from a database at DataGridView, you need to drag a data source and drop onto a form. Then, automatically an object \_\_\_\_\_ from the Component Designer tray will be added. Identify Z.

- A. BindingSource object.
- B. TableAdapter object
- C. DataSet object
- D. DataAdapter object

(1.25 marks)

**Q31** Identify the property of a database that must contain a connection object.

- A. Location and Query
- B. Location and Type
- C. Query and Command
- D. Location and Query

(1.25 marks)

**Q32** Choose the **BEST** code statement to put some data into a dataset called CustomerDataset using the CustomerDataAdapter object.

- A. `CustomerDataset.Fill(CustomerDataAdapter)`
- B. `CustomerDataAdapter.Load(CustomerDataset)`
- C. `CustomerDataset.Load(CustomerDataAdapter)`
- D. `CustomerDataAdapter.Fill(CustomerDataset)`

(1.25 marks)

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**Q33** Choose the **CORRECT** way to implement input validation.

- i. TryParse Method
  - ii. TextBox.TextChanged Event
  - iii. Try keyword
- 
- A. i only
  - B. i and ii
  - C. ii and iii
  - D. i, ii, and iii

(1.25 marks)

**Q34** Select an advantage for input validation in order to implement an effective and secure VB code.

- A. To prevent user from submitting blanks value
- B. To handle runtime errors
- C. To check syntax error
- D. To list all the user input

(1.25 marks)

**Q35** "Failure of a numeric conversion, such as Integer.Parse or Decimal.Parse. Usually blank or nonnumeric data"

Classify the types of exception for the above situation.

- A. System.IO.IOException
- B. System.InvalidCastException
- C. System.OutOfMemoryException
- D. FormatException

(1.25 marks)

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**Q36** Choose the **CORRECT** match between keywords used for handling exception and its description.

	Keywords	Description
i.	Try	Identifies a block of code for which particular exceptions will be activated. It's followed by one or more Catch blocks.
ii.	Catch	Catches an exception with an exception handler at the place in a program where you want to handle the problem. The Catch keyword indicates the catching of an exception.
iii.	Throw	Used to execute a given set of statements, whether an exception is thrown or not thrown.
iv.	Throw	A program throws an exception when a problem shows up.

- A. i, ii, iii and iv
- B. i, ii and iii
- C. i, ii and iv
- D. i and ii

(1.25 marks)

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**PART B**

**Q31 (a)** Write the declarations (Dim or Const statements) for each of the following situations and indicate where each statement will appear.

(i) The total of the payroll that will be needed in a Calculate event procedure and in a Summary event procedure. (1 mark)

(ii) The sales tax rate that cannot be changed during execution of the program but will be used by multiple procedures. (1 mark)

(b) Prepare flowchart for the following program segment:

```

If intTemp > 32 Then
    If intTemp > 80 Then
        lblComment.Text = "Hot"
    Else
        lblComment.Text = "Moderate"
    End If
Else
    lblComment.Text = "Freezing"
End If
    
```

(5 marks)

(c) (i) From the number of students from Department of Information Technology by course as follows:

Course	Number of students
Java Programming	145
E-Commerce	150
Dot Net Programming	163
Principles of Programming	187
Computer Ethics	179

Write a code to declare an array for the “Course” and “Number of Students”.

(3 marks)

(ii) Write a code to assign all values to the arrays “Course” and “Number of Students” in the Form\_Load section.

```

Private Sub frmArray_Load(sender As Object, e As_
EventArgs) Handles MyBase.Load

    'Write your code here
End Sub
    
```

(5 marks)





- (iii) Display all information from “Course” and “Number of students” using a listbox.  
(2 marks)

**Q32 (a)** A company needs a web application to compute the total price of any item in inventory. **Figure Q32(a)** show a web form for the application “Computing Inventory Price”. The form will enable user to input values into three textboxes including product description, quantity on hand, and product cost.

- (i) Construct a VB.Net code to perform click event for Compute button. From the event, the total value of the total price of any item in inventory will be calculated and display as shown in **Figure Q32(a)**.

(8 marks)

- (ii) Construct a statement to validate the input quantity on hand at txtquantity using Integer.TryParse Method.

(3 marks)

- (b) After implementing the event procedure, an error message will popping up as shown in **Figure Q32(b)**.

```
Private Sub btnCalculate_Click
  (ByVal sender As System.Object, _
    ByVal e As System.EventArgs) Handles Button1.Click

    Dim i As Integer
    Dim resultValue As Integer
    i = 100
    resultValue = i / 0
    MsgBox("The result is " & resultValue)

End Sub
```

- (i) Recognize the type of exception class to handle errors generated from the arithmetic calculation.

(2 marks)

- (ii) Rewrite the above code by applying Try... Catch statement to handle the exception.

(4 marks)

- (iii) Differentiate the uses of Catch keyword and Finally keyword for handling exception in VB.Net.

(2 marks)

**Q33** (a) There are many .NET Framework Data Providers in ADO.NET that can be deploy to access data. List **THREE (3)** .NET Framework Data Providers along with its namespace.

(3 marks)

(b) Rewrite and fill in the blank spaces (i) to (iv) with appropriate answer.

```
protected void btnOK_Click(object sender, EventArgs e)
{
    MySqlConnection conn = new MySqlConnection(@"Data
    Source=localhost;port=3306;Initial
    Catalog=asptest;User id=root;Password='');

    conn._____ (i) _____;

    MySqlCommand comm = conn._____ (ii) _____ ();

    comm.CommandType = _____ (iii) _____ .Text;

    comm.CommandText = "insert into person values('"
    +TextBox1.Text + "',''+ TextBox2.Text + "')";

    comm._____ (iv) _____;

    conn.Close();
}
```

(4 marks)

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BRINARIS TRIM ANHSAU  
 dmsyans?  
 lamulu ky...  
 g...  
 slay...  
 gm uba...

- (c) Assumes yourself as database admin. Your responsibility is to manage the database by deploying any essential SQL statement to manipulate the data in database table. Below are Student table that require you to manage.

Name	MatricNo	City
Abdullah	12345	Parit Raja
Gabriel	11111	Batu Pahat
Uwais	22222	Keluang
Michael	33333	Air Hitam
Sani	44444	Parit Raja

Construct SQL statements to:

- (i) Insert a new data into table Student. (2 marks)
- (ii) Delete record according to MatricNo = "11111". (2 marks)
- (iii) Update the City from "Parit Raja" to "Johor Baharu". (2 marks)
- (iv) Select all record from table Student where City is "Keluang" and "Air Hitam". (2 marks)
- (v) Drop table student from database. Then, describe the differentiation between Truncate and Drop. (2 marks)
- (vi) Display all student name with matric number greater than "1111" (2 marks)

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**-END OF QUESTIONS-**

**FINAL EXAMINATION**

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 COURSE NAME : PRINCIPLES OF DOT NET  
 PROGRAMMING

PROGRAMME : DAT  
 COURSE CODE : DAT20903

**TABLE Q10**

Code	Character	Code	Character	Code	Character
32	Space (blank)	64	@	96	'
33	!	65	A	97	a
34	"	66	B	98	b
35	#	67	C	99	c
36	\$	68	D	100	d
37	%	69	E	101	e
38	&	70	F	102	f
39	,	71	G	103	g
40	(	72	H	104	h
41	)	73	I	105	i
42	*	74	J	106	j
43	+	75	K	107	k
44	,	76	L	108	l
45	-	77	M	109	m
46	.	78	N	110	n
47	/	79	O	111	o
48	0	80	P	112	p
49	1	81	Q	113	q
50	2	82	R	114	r
51	3	83	S	115	s
52	4	84	T	116	t
53	5	85	U	117	u
54	6	86	V	118	v
55	7	87	W	119	w
56	8	88	X	120	x
57	9	89	Y	121	y
58	:	90	Z	122	z
59	;	91	[	123	{
60	<	92	\	124	
61	=	93	]	125	}
62	>	94	^	126	~
63	?	95	_	127	Del

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Table Q23

X

	Student ID	First Name	Last Name
+	12345	Dan	Wilson
+	12346	Wu	Peng
+	13245	Susan	Metters
+	13246	Jose	Lugo

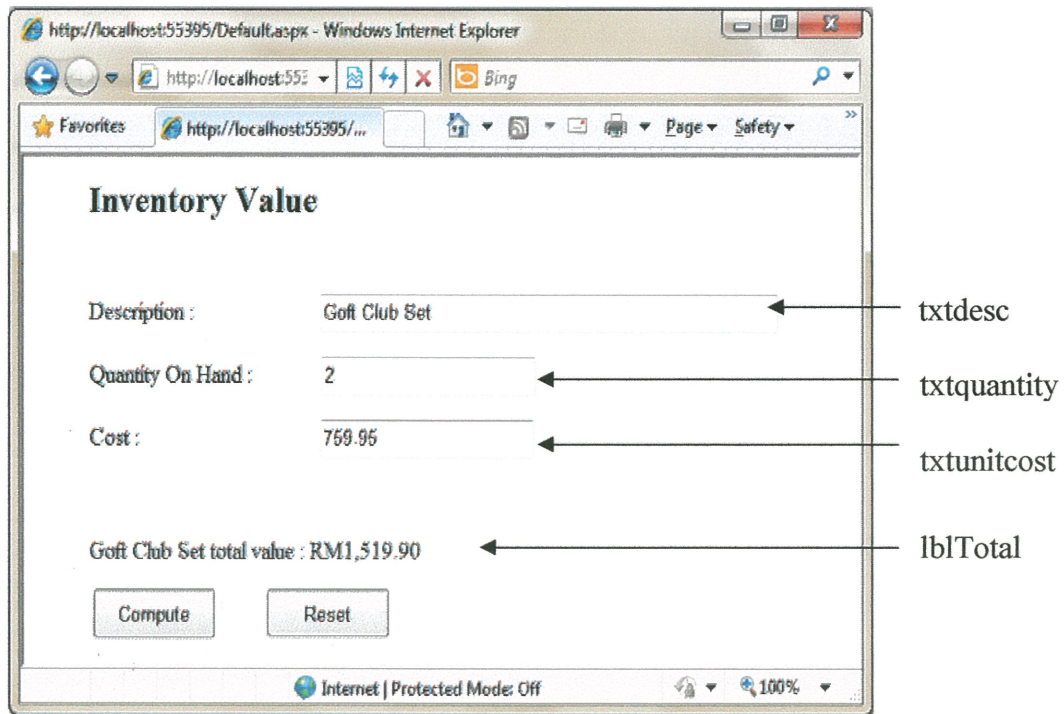


Figure Q31(a)

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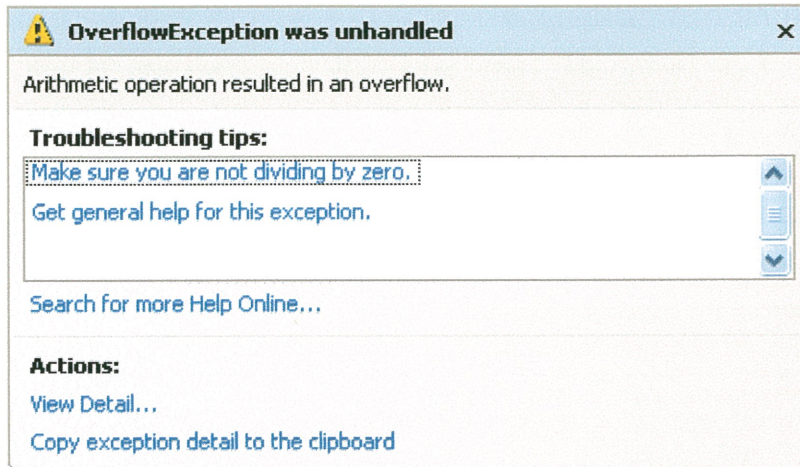


Figure Q32(b)

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